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EXAMINER

CHORBAJI, MONZER R

ART UNIT PAPER NUMBER

1744

6

DATE MAILED: 05/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



# Office Action Summary

Application No.

09/830,088

Applicant(s)

HINZE, GILBERT THEO

Examiner

MONZER R CHORBAJI

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_



## DETAILED ACTION

### *Claim Objections*

1. Claim 6 is objected to because of the following informalities:

In claim 6, line 1; after "as claimed" please replace "i" with "in". Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, line 2; applicant uses the term "3 to 10% aqueous solution". Does the applicant mean that the concentration range is for the group of compounds in claim 7? Clarification and rewording of the claim are needed to understand the meaning of claim 8.

In claim 16, line 3-4; applicant uses the term "the particular application". Does the applicant refer to the fresh produce application? Clarification and rewording of the claim are needed to understand the meaning of claim 16.

In claim 16, lines 1-2; applicant uses the term "the physical characteristics". Does the applicant refer to the concentration or the pH or the redox potential? Clarification and rewording of the claim are needed to understand the meaning of claim 16.



***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6-7, 10, and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Doi (EP 0,802,164).

With respect to claim 1; Doi teaches a method (page 1, lines 5-8) for treating bulk food storage containers (page 5, lines 51-55) by using electrochemically activated aqueous solution.

With respect to claim 2; Doi teaches of treating fresh produce with electrochemically activated aqueous solution (page 5, lines 54-55) during storage in a food container (page 5, line 55).

With respect to claim 3; Doi discloses that electrochemically activated aqueous solution can be applied to fresh produce and also to containers in food facilities (page 5, lines 51-55). Thus, such facilities inherently include means for producing the activated aqueous solution.

With respect to claim 4; Doi teaches that the means for producing the activated aqueous solution can be transported (page 15, lines 50-53). Thus, a transporter is inherently needed to transport the means.



With respect to claim 6; Doi discloses that the activated aqueous solution be applied to food facilities (page 5, lines 54-55) such that the activated aqueous solution is in iced form (page 10, lines 1-4).

With respect to claim 7; Doi teaches the use of an electrolysis device (page 1, lines 19-20) which inherently produces cation-containing solution (page 1, line 20).

With respect to claim 10; Doi teaches a method in which the activated aqueous solution is anion-containing solution produced by an electrolysis device (page 1, lines 19-20) having the following inherent limitations: an electrochemical cell (page 1, lines 19-20) with two electrodes (page 1, line 22) and a diaphragm (page 1, line 23) to separate the inter-electrode space into a catalytic and analytic chambers (page 1, lines 23-24).

With respect to claims 12-15; Doi discloses that an anion-containing solution or a cation-containing solution inherently includes hydroxide ions (page 1, line 20). Also, since an anion-containing solution and a cation-containing solution are produced then they must inherently include such a redox potential and pH ranges.

With respect to claim 16; Doi teaches that the activated aqueous solution can be applied to various fields (page 16, lines 41-43). This inherently means that the physical characteristics of the activated aqueous solution can be easily manipulated depending on the type of field.



***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 5, 8-9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi (EP 0,802,164).

With respect to claim 5; Doi teaches that ice made from the electrochemically activated aqueous solution is used to pack seafood in the container (page 10, lines 1-4). Also, Doi discloses that the electrochemically activated aqueous solution can be used in the food industry (page 5, lines 54-55). Thus, it would have been obvious to apply ice made from the electrochemically activated aqueous solution in packing fresh produce in the container as taught by Doi.

With respect to claim 8; Doi teaches that a small amount of aqueous salt solution is added (page 1, lines 24-26) before the electrolysis process. However, a small amount



is inclusive of the range in claim 8. Furthermore, optimization of such a parameter (concentration) is well within the scope of the artisan.

With respect to claim 9; Doi teaches the use of sodium chloride (page 10, lines 42-43).

With respect to claim 11; Doi's electrochemically activated aqueous solution is intrinsically labile as well as would intrinsically disappear in about 96 hours (page 1, lines 19-26) with relatively no residues being produced (page 5, line 53).

### ***Conclusion***

9. The prior art made of record but not relied upon is considered pertinent to applicant's disclosure. Bakhir et al (U.S.P.N. 5,985,110), and Shimamune et al (U.S.P.N. 6,126,796) teach the concept of using electrochemically activated aqueous solution as a bactericide agent in numerous applications.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (703) 305-3605. The examiner can normally be reached on M-F 8:30-5:00.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305-7719 for After Final communications.



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12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Monzer R. Chorbaji *MRC*  
Patent Examiner  
AU 1744  
April 4, 2002

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